

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/33239

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A47C 1/08

US CL : 250.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 250.1, 253, 254, 485, 484, 467

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,450,576 (RHEIN et al) September 17, 2002, entire document.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54
X	US 6,450,576 (RHEIN et al) September 17, 2002, entire document.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54

Y	US 6,601,917 (CHRISTOPHERSON) August 5, 2003, Figures 4-6.	----- 34
X	US 6,450,576 (RHEIN et al) September 17, 2002, entire document.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54

Y	US 6,499,786 (TAKAHASHI) December 31, 2002, Figure 1.	----- 32-33, 55



Further documents are listed in the continuation of Box C.



See patent family annex.

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later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

31 May 2005 (31.05.2005)

Date of mailing of the international search report

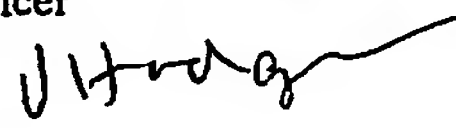
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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,450,576 (RHEIN et al) September 17, 2002, entire document. US 2002/0109381 (DUNCAN) August 15, 2002, paragraph 21.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54 ----- 46
X --- Y	US 6,450,576 (RHEIN et al) September 17, 2002, entire document. US (2002/0017808 A1 (Werner) November 25, 1975, Figure 1.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54 ----- 49-52
X --- Y	US 6,450,576 (RHEIN et al) September 17, 2002, entire document. US 2002/0017808 (KAIN) February 14, 2002, Figure 1.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54 ----- 15, 17-18, 20
X --- Y	US 6,450,576 (RHEIN et al) September 17, 2002, entire document. US 2003/0155797 (AMIRAULT et al) August 21, 2003, Figure 1.	1-14, 16, 19, 21-26, 29-31, 35, 47 and 53- 54 ----- 27-28